

Comparison of American Medical Dictionaries*

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ABSTRACT

Although American medical dictionaries are a valuable part of any medical library collection, the attributes of each of the four major dictionaries are often unknown and the reference material contained in each unused. The medical librarian should be aware of the differences and values of each dictionary and try to have at least one edition of each available to library users in order to maintain an adequate reference collection.

MEDICAL dictionaries are basic tools in every medical library, and a comparison of the four major American medical dictionaries, with the hospital library and its clientele in mind, shows that there is no one dictionary that can supply the needs of all health professionals served in this setting.

Samuel Johnson observed that "dictionaries are like watches; the worst is better than none, and the best cannot be expected to go quite true" [1]. Even with computer revision, included by all four dictionary publishers discussed, and extensive authoritative editing, any one of these reference works may in some instances be in error, as is pointed out by Vernon [2]. However, each has features valuable to the hospital medical library and its patrons; owning all four ensures an adequate reference collection.

PURPOSE

The stated purpose of each dictionary varies. *Dorland's Illustrated Medical Dictionary* [3] purports to be the leader in "maintaining the stan-

dards of etymological propriety," whereas *Stedman's Medical Dictionary* [4], *Blakiston's Gould Medical Dictionary* [5], and *Taber's Cyclopedic Medical Dictionary* [6] lean toward actual usage of words as a means of determining the basis for correct definition. The controversy between these two schools of thought—maintaining the status quo and integrity of the language, and bowing to popular usage—should be a point that the user takes into consideration when searching for synonyms, or that the librarian takes into consideration when making a choice for the library's collection. King [7] discusses this problem in connection with the use of the words *pannus* and *panniculus* and the tendency by some dictionaries to cling to an archaic definition.

American medical dictionaries were first published in the late nineteenth century and, as can be seen by the edition numbers of the present volumes, have had both frequent and occasional updating. *Blakiston's Gould* is only in its third edition, whereas *Stedman's* and *Dorland's* have twenty-third and twenty-fifth editions, respectively. *Taber's* has just published its thirteenth edition. All four now have computer production of the entries, which should result in more complete and efficient revising of terms.

Editors, contributors, and authorities number in the hundreds for *Dorland's*, while one editor and the staff of F. A. Davis produce *Taber's*. The format of the four dictionaries can be seen in the accompanying sample entries (Figures 1-4). The smaller-sized *Taber's* is easy to read; but the other dictionaries have many more entries.

VOCABULARY

Content and treatment of the vocabulary is one of the criteria for selection that is used by a librarian. *Dorland's* lists entries under a specific

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cecum (sē'kūm) [L. *caecum*, blindness]. A blind pouch or cul-de-sac which forms the first portion of the large intestine, located below the entrance of the ileum at the ileocecal valve. It averages about 6 cm. in length and 7.5 cm. in width and bears at its lower end the vermiform process or appendix. SEE: *abdominal regions* for *illus.*

-cele [Gr. *kēlē*, hernia]. Suffix indicating a swelling.

celery [Gr. *selinon*]. The edible stalks and leaves of the plant *Apium graveolens*.

Food value of 100 gm. (raw): Cal. 17; protein 0.9 gm.; trace of fat; carbohydrate 3.9 gm.; calcium 39 mg.; ascorbic acid 9 mg.

celiac (sē'li-āk) [Gr. *koiilia*, belly]. Rel. to the abdominal regions.

c. artery. The first branch of the abdominal aorta. Branches supply the stomach, liver, spleen, duodenum, and pancreas.

c. axis. C. artery, q.v.

c. disease. Intestinal malabsorption characterized by diarrhea, malnutrition, bleeding tendency, and hypocalcemia. TREATMENT: Gluten-free diet which may have to be continued for an indefinite period.

c. plexus. Sympathetic plexus lying near the origin of celiac artery. SEE: *plexuses* in *Appendix*.

FIG. 1.—*Taber's Cyclopedic Medical Dictionary*. 13th ed. Philadelphia, F. A. Davis Co., 1977. Used with the permission of the publisher.

subject, a noun, while *Blakiston's Gould* has a separate entry for every word or multiple word. *Taber's* tries to combine the two methods by listing entries under the adjective rather than the noun, for multiple words, but frequently listing them under both. The latter device provides the searcher an advantage when a specific descriptive term is elusive, but the general term, such as *cecum*, is known. In *Taber's* and *Blakiston's Gould* there is only a definition of the word *cecum* (see Figures 1 and 2), but in *Dorland's* and *Stedman's* the various types of ceca are listed (see Figures 3 and 4). *Taber's* and *Blakiston's Gould* provide with the adjective *celiac* all of the nouns associated with that adjective, while *Dorland's* and *Stedman's* merely define the adjective (see Figures 1-4). Note that only *Stedman's* and *Blakiston's Gould* give the plural form of *cecum*.

TERM SEARCHING

For finding synonyms and for term searching, while doing bibliographies either by hand or on-line, it is important to have either *Dorland's* or *Stedman's*, both of which list main entries by

noun; and *Taber's* or *Blakiston's Gould*, both of which contain nouns and adjectives as main entries.

Attempting to arrive at the correct medical subject heading or MeSH term from a patron's description of a subject calls for the ability to remember the different treatment of synonyms by the four dictionaries. MeSH terms can often be found by a direct search for the synonym. *Calmette's vaccine* is not a MeSH term and has no cross-reference; but *Dorland's* includes *BCG vaccine*, a MeSH term found under *Calmette's* . . . vaccine.

A reverse approach is sometimes necessary in order to locate the proper term. For example, *omphalomesenteric duct* is not a MeSH heading under either *omphalomesenteric* or *duct*. Neither *Dorland's* nor *Stedman's* carry *omphalomesenteric* as a main entry, although *Taber's* does. In *Dorland's* and *Taber's* under *ducts* is *omphalomesenteric*, with the synonym *vitelline duct*, a MeSH term.

SYNDROMES

Syndrome lists are also an important part of the medical dictionary. These lists many times lead to MeSH-term syndromes that are not found in the special syndrome dictionaries. For example, *cervical fusion syndrome* cannot be found in any of the syndrome dictionaries; but *Stedman's* lists *Klippel-Feil Syndrome*, a MeSH term, under *syndromes, cervical fusion*.

Comparison of other features of the four dictionaries shows that *Stedman's* has a great number of illustrations, the authority of outstanding contributors, and a comprehensive appendix with many tables and lists helpful to scientists and librarians. The main flaw of *Stedman's* is its failure to provide phonetic respelling of every word. The necessity to resort to a phonetic "key" in the front of the volume is not as convenient as having the phonetic respelling included with the vocabulary, as it is in the other three dictionaries.

Although *Blakiston's Gould* may lack the double approach to definitions, it is the only one to specify part of speech in the entries and to indicate word division.

Anyone doing extensive bibliographical work with *Index Medicus* would need to own *Dorland's*, because it is the accepted authority of the former's indexers. However, *Dorland's* includes few illustrations, and Vernon [2] claims that it does not have the right to call itself an "illustrated" dictionary.

ce-cum, cae-cum (see'kum) *n.*, pl. **ce-ca, cae-ca** (-kuh) [L. *caecum*, from *caecus*, blind]. 1. [NA, BNA] The large blind pouch or cul-de-sac in which the large intestine begins. See Plate 13. 2. The blind end of a tube.
cecum cu-pu-la-re (kew-pew-lair'ee) [NA]. The blind sac which is the termination of the cochlear duct at the apex of the spiral lamina of the internal ear.
cecum ve-sib-bu-la-re (ves-tib-yoo-lair'ee) [NA]. The blind sac at the beginning of the cochlear duct in the vestibule of the internal ear.
ce-dar (see'dur) *n.* [Gk. *kedros*]. Any of various trees of the genera *Cedrus*, *Juniperus*, and *Thuja*.
cedar leaf oil. A volatile oil from the leaves of *Thuja occidentalis*, containing ketones, chiefly thujone and fenchone. Formerly used in menstrual disorders, occasionally as a counterirritant.
cedar oil. A transparent oil obtained from the tree *Juniperus virginiana*; used as clearing agent in histology and with oil-immersion lenses.
Cedilanid. Trademark for crystalline lanatoside C, a cardioactive glycoside from *Digitalis lanata*. See also *digoxin*.
Cedilanid-D. Trademark for deslanoside, or desacetyl lanatoside C, a cardioactive glycoside.
ce-drene (see'dreen) *n.* A volatile liquid hydrocarbon, C₁₅H₂₄, found in red cedar oil (*Juniperus virginiana*), clove oil, and cubeb oil.
ce-dron (see'dron) *n.* The seeds of the tree *Simba cedron*, formerly considered to have antimalarial activity.
Coepryn chloride. Trademark for cetylpyridinium chloride, an antiseptic and detergent.

FIG. 2.—From *Blakiston's Gould Medical Dictionary*. 3d ed. © 1977 by McGraw-Hill Book Co., New York. Used with the permission of the publisher.

cecum, pl. **ce'ca** (se'kum) [L. ntr. of *caecus*, blind] [NA]. Caecum. 1. Typhlon; blind gut, the cul-de-sac, about 2½ inches in depth, lying below the terminal ileum forming the first part of the large intestine. 2. Any similar structure ending in a cul-de-sac.
c. cupula're [NA]. cupular blind sac; the upper blind extremity of the cochlear duct.
c. vestibula're [NA]. vestibular blind sac; the lower extremity of the cochlear duct, occupying the cochlear recess in the vestibule.
cecutient (se'ku-shunt) [L. *caecus*, blind]. A person with partial sight.
ce-dar leaf oil. *Thuja* oil; arbor vitae oil; obtained by steam distillation from the fresh leaves of *Thuja occidentalis*; used as an insect repellent and counterirritant, and in perfumery.
ce-dar wood oil. Volatile oil obtained from the wood of *Juniperus virginiana* (family Pinaceae); used as an insect repellent, in perfumery, and as a clearing agent in microscopy.
cel [L. *celer*, swift]. A unit of velocity; 1 cm. per second.
cela'tion [L. *celo*, pp. -atus, to conceal]. Concealment of pregnancy or of the birth of a child.
-cele (-sē) [G. *kēlē*, tumor, hernia]. A suffix denoting a swelling or hernia of the part signified by the main word.
celectome (se'lek-tōm) [G. *kēlē*, tumor, + *ektomē*, excision]. An instrument, such as the harpoon, for obtaining a bit of tissue from the interior of a tumor for examination.
celenteron (se-len'ter-on) [G. *koilos*, hollow, + *enteron*, intestine]. Archaenteron.
cel'ery seed. The dried ripe fruit of *Apium graveolens* (family Umbelliferae); has been used in dysmenorrhea and as a sedative.
celestic'e'tin. Antibiotic produced by *Streptomyces caelestis*; possesses antimicrobial activity.
ce'liac [G. *koilia*, belly. CELI-]. Relating to the abdominal cavity.
celi'acus [L.] [NA]. Celiac.

FIG. 3.—*Stedman's Medical Dictionary*. 23d ed. © 1976 by The Williams & Wilkins Co., Baltimore. Used with the permission of the publisher.

ce-li-ac, cae-li-ac (see'lee-ack) *adj.* [Gk. *koiliakos*, from *koilia*, belly]. Abdominal; pertaining to the abdomen.
celiac artery. Celiac trunk.
celiac axis. Celiac trunk.
celiac disease. Celiac syndrome.
celiac ganglions. The collateral sympathetic ganglions lying in the celiac plexus near the origin of the celiac artery. Also called *ganglia celiaca*.
celiac infantilism. Pancreatic infantilism.
celiac plexus. A large nerve plexus lying in front of the aorta around the origin of the celiac trunk. It is formed by fibers from the splanchnic and vagus nerves and is distributed to the abdominal viscera. Also called *plexus celiacus*.
celiac rickets. Rickets resulting from lack of absorption of vitamin D and loss of calcium in the stool, associated with the celiac syndrome.
celiac syndrome or disease. One of the malabsorption syndromes characterized by malnutrition, abnormal stools, and varying degrees of edema, skeletal disorders, peripheral neuropathy, and anemia. Abnormalities of the small intestinal villi and the response to a gluten-free diet are diagnostic. See also *infantile celiac disease*.
celiac trunk. The short, thick artery arising from the anterior (ventral) aspect of the abdominal aorta between the two crura of the diaphragm. It usually divides into the hepatic, splenic, and left gastric arteries. Also called *truncus celiacus*. See Plate 8.

cecum (se'kum) [L. *caecum* blind, blind gut] 1. the first part of the large intestine, forming a dilated pouch into which open the ileum, the colon, and the appendix vermiformis; called also *blindgut*, *caput coli*, *head of blind colon*, *blind intestine*, and *intestinum caecum*. 2. any blind pouch or cul-de-sac. **cupular c. of cochlear duct**, **c. cupula're duc'tus cochlea'ris** [NA], the closed blind upper end of the cochlear duct. **hepatic c.**, a pouching of the embryonic intestine that develops into the liver. **high c.**, a cecum situated higher up in the abdomen than normal. **mobile c.**, **c. mo'bile**, abnormal mobility of the cecum and lower portion of the ascending colon, caused by incomplete rotation or faulty fixation of the cecum in embryonic development. **vestibular c. of cochlear duct**, **c. vestibula're duc'tus cochlea'ris** [NA], a small blind outpouching at the lower vestibular end of the cochlear duct.
Cedilanid (se'di-lan'id) trademark for a preparation of lanatoside C.
Cedilanid-D trademark for a preparation of deslanoside.
Cediopsylla (se'de-o-sil'ah) a genus of fleas, including some of the rabbit fleas.
Cel. Celsius (thermometric scale).
cel (sel) a unit of velocity, being the velocity of 1 cm. per second.
cel- see *celo*.
celarium (se-la're-um) mesothelium.
Celbenin (sel'ben-nin) trademark for preparations of sodium methicillin.
-cele (sēl) 1. [G. *kēlē* hernia] a word termination denoting relationship to a tumor or swelling. 2. [Gr. *koilia* cavity] a word termination denoting relationship to a cavity; see also words spelled *-coele*.
celectome (se-lek'tōm) [Gr. *kēlē* tumor + *ektomē* excision] an instrument for removing a segment of tumor for examination.
celenteron (se-len'ter-on) archenteron.
celiac (se'le-ak) [Gr. *koilia* belly] pertaining to the abdomen.

FIG. 4.—*Dorland's Illustrated Medical Dictionary*. 25th ed. Philadelphia, W. B. Saunders Co., 1974. Used with the permission of the publisher.

Kolman observes that one of the faults of nursing and medical dictionaries is that they "include only a small percentage of abbreviations and few, if any, acronyms" [8]. However, *Taber's* has a unique feature dealing with abbreviations, that of listing the abbreviation for a word after its definition. In all four dictionaries abbreviations are listed alphabetically as main entries. For example, *I.V.* is listed and followed by "abbr. for intravenous(ly)" in all four dictionaries; but in *Taber's* there is also an entry "Intravenous . . . ABBR: I.V." Thus, if the abbreviation is not known, it can be found in *Taber's*.

REVIEWS

Are reviews, guides, or book lists helpful to the librarian when making a selection for the reference library? One or all of the four major dictionaries appear on most core book lists [9-14], but these lists do not evaluate the contents or compare the values of the dictionaries to the various types of users and libraries. King concludes, perhaps rightly, that "a medical dictionary cannot be all things to all men," and that more selectivity should be practiced with the intended audience in mind, resulting in "separate volumes for separate audiences" [15].

In reference guides such as Sheehy's *Guide to Reference Books* and Walford's *Guide to Reference Material*, the only current edition of the four medical dictionaries reviewed is *Blakiston's Gould*, which is listed by Sheehy.

Book reviews on the new editions, other than those by Vernon [2], King [15], and Beatty [16], are difficult to find. This leaves the selection and evaluation to the medical librarian. The hospital medical librarian should be especially aware of the differences in the dictionaries and the deletions and changes that occur with each new edition.

Budget considerations may preclude buying all four dictionaries or updating with each new edition as it appears; however, an alternative to such expense is available with reprints such as Robert Kreiger's *Stedman's* twenty-second edition [17], which has a valuable "pharmaceutical preparations" appendix not found in the twenty-third edition and costs only \$12.95. Pocket editions of

Blakiston's Gould and *Dorland's* are also available.

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